

I. AMENDMENT

Amendment of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)
2. (Currently amended) An improved method of treating an autoimmune disease or disorder treatable by inhibiting gp39 expression or the interaction of human gp39 with CD40, wherein said method comprises
 - (a) obtaining anti-human gp39 antibodies;
 - (b) assaying to identify anti-human gp39 antibodies that inhibit the interaction of human gp39 with CD40;
 - ~~(c) assaying to identify anti-human gp39 antibodies that compete for binding to human gp39 with murine antibody 24-31, produced by hybridoma cells assigned ATCC accession no. HB 11712;~~
 - ~~(d) (c)~~ assaying *in vitro* to identify soluble anti-human gp39 antibodies that are non-agonistic of an activation response by purified human CD4⁺ T-cells that have been cultured *in vitro* with immobilized anti-CD3 antibodies, the activation response selected from the group consisting of T-cell proliferation, the production of interleukin 2 (IL-2), the production of interleukin-4 (IL-4) and the production of interferon γ (IFN- γ);
 - ~~(e) (d)~~ identifying anti-human gp39 antibodies that inhibit the interaction of human gp39 with CD40, ~~compete with murine antibody 24-31 for binding to human gp39~~; and are non-agonistic of said human T-cell activation response under the assay conditions of step (c); and
 - ~~(f) (c)~~ administering a therapeutically effective amount of said anti-human gp39 antibodies that inhibit the interaction of human gp39 with CD40, ~~compete with murine antibody 24-31 for binding to human gp39~~, and are non-agonistic of said human T-cell activation response.

3. (Previously presented) The improved method of claim 2 wherein said disease or disorder is characterized by induction of IL-2 production, and the anti-human gp39 antibodies that are administered are non-agonistic of IL-2 production by human T cells.

4. (Canceled)

5. (Previously presented) The improved method of claim 2, wherein said autoimmune disease or disorder is selected from the group consisting of rheumatoid arthritis, psoriasis, multiple sclerosis, diabetes, systemic lupus erythematosus and idiopathic thrombocytopenic purpura.

6-15. (Canceled)

16. (Previously presented) The improved method of claim 2, wherein said autoimmune disease or disorder is multiple sclerosis.

17. (Previously presented) The improved method of claim 2, wherein the anti-gp39 antibodies that are administered are chimeric or humanized antibodies having constant regions of human antibodies.

18. (Previously presented) The improved method of claim 17, wherein the anti-gp39 antibodies that are administered are chimeric antibodies having light and heavy chain variable regions of an antibody of an Old World monkey, and constant regions of human antibodies.

19. (Previously presented) The improved method of claim 17, wherein the anti-gp39 antibodies that are administered are humanized antibodies.

20. (Previously presented) The improved method of claim 17, wherein the anti-gp39 antibodies that are administered have heavy chain constant regions from a human antibody of isotype selected from gamma-1, gamma-3, and gamma-4.

21. (Previously presented) The improved method of claim 17, wherein the anti-gp39 antibodies that are administered comprise a light or heavy chain that has at least one conservative amino acid substitution.

22-29. (Canceled)

30. (Currently amended) The improved method of claim 2, wherein step ~~(d)~~ (c) comprises assaying *in vitro* to determine the effect of a soluble anti-human gp39 antibody on the production by the purified human CD4⁺ T cells of a cytokine selected from IFN- γ , IL-4, and IL-2.

31. (Canceled)

32. (Previously presented) The improved method of claim 30, wherein the anti-human gp39 antibodies that are administered inhibit the gp39-CD40 interaction and are non-agonistic of production by the purified human CD4⁺ T cells *in vitro* of a cytokine selected from IFN- γ , IL-4, and IL-2.

33. (Currently amended) The improved method of claim 2, wherein step ~~(d)~~ (c) comprises assaying *in vitro* to determine the effect of a soluble anti-human gp39 antibody on proliferation of the purified human CD4⁺ T cells.

34. (Previously presented) The improved method of claim 33, wherein the anti-human gp39 antibodies that are administered inhibit the gp39-CD40 interaction and do not stimulate proliferation of the purified human CD4⁺ T cells *in vitro*.

35. (Previously presented) The improved method of claim 2, wherein the anti-gp39 antibodies are administered parenterally.

36. (Previously presented) The improved method of claim 17, wherein the anti-gp39 antibodies are administered parenterally.

37. (Previously presented) The improved method of claim 17, wherein the dosages of anti-gp39 antibodies that are administered are in the range of 0.05 to 100 mg per kilogram body weight per day.

38. (Previously presented) The improved method of claim 37, wherein the dosages of anti-gp39 antibodies that are administered are in the range of 0.5 to 10 mg per kilogram body weight per day.

39. (New) A method for providing anti-human gp39 antibodies that inhibit the interaction of human gp39 with CD40 and are non-agonistic of an activation response by human CD4⁺ T-cells, which method comprises:

(a) obtaining monoclonal anti-human gp39 antibodies that inhibit the interaction of human gp39 with CD40;

(b) assaying *in vitro* to identify soluble anti-human gp39 antibodies of step (a) that are non-agonistic of an activation response by purified human CD4⁺ T-cells that have been cultured *in vitro* with immobilized anti-CD3 antibodies, the activation response selected from the group consisting of T-cell proliferation, the production of interleukin-2 (IL-2), the production of interleukin-4 (IL-4), and the production of interferon γ (IFN- γ).

40. (New) The method of claim 39, wherein step (a) comprises assaying to identify monoclonal anti-human gp39 antibodies that inhibit the interaction of human gp39 with CD40.

41. (New) The method of claim 39, wherein step (b) comprises assaying *in vitro* to identify soluble anti-human gp39 antibodies that inhibit the gp39-CD40 interaction and are non-agonistic of production by the purified human CD4⁺ T-cells of a cytokine selected from the group consisting of IL-2, IL-4 and IFN- γ in the *in vitro* assay of step (b).

42. (New) The method of claim 39, wherein step (b) comprises assaying *in vitro* to identify soluble anti-human gp39 antibodies that inhibit the gp39-CD40 interaction and do not stimulate proliferation of the purified human CD4⁺ T-cells in the *in vitro* assay of step (b).